

What is claimed is:

- Sub 911/5
1. A substrate treating method for cleaning a substrate by supplying a cleaning solution thereto, comprising the steps of:  
supplying said cleaning solution having ozone dissolved therein to said substrate; and  
irradiating said cleaning solution with ultraviolet light.
  - 10 2. A substrate treating method for cleaning a substrate by supplying a cleaning solution thereto, comprising the steps of:  
irradiating said cleaning solution having ozone dissolved therein with ultraviolet light; and  
supplying said cleaning solution to said substrate.
  - 15 3. A method as defined in claim 1, wherein said ultraviolet light has a wavelength in a range of 242.4 to 300nm.
  4. A method as defined in claim 2, wherein said ultraviolet light has a wavelength in a range of 242.4 to 300nm.
  - 20 5. A method as defined in claim 1, wherein said cleaning solution has a base added thereto.
  - 25 6. A method as defined in claim 2, wherein said cleaning solution has a base added thereto.

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7. A method as defined in claim 3, wherein said cleaning solution has a base added thereto.

5 8. A method as defined in claim 4, wherein said cleaning solution has a base added thereto.

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10 9. A substrate treating apparatus comprising:  
support means for supporting a substrate;  
cleaning solution supply means for supplying a cleaning solution having ozone dissolved therein to said substrate; and  
ultraviolet emitting means for emitting ultraviolet light to said substrate;

15 wherein, during a cleaning process in which said cleaning solution is supplied from said cleaning solution supply means to said substrate supported by said support means, said ultraviolet emitting means emits ultraviolet light to said cleaning solution supplied to said substrate.

20 10. An apparatus as defined in claim 9, wherein the ultraviolet light emitted from said ultraviolet light emitting means has a wavelength in a range of 242.4 to 300nm.

25 11. An apparatus as defined in claim 9, wherein said cleaning solution has a base added thereto.

Sub B1  
12. An apparatus as defined in claim 10, wherein said cleaning solution has a base added thereto.

5 13. A substrate treating apparatus comprising:  
support means for supporting a substrate;  
ultraviolet emitting means for emitting ultraviolet light to a cleaning solution having ozone dissolved therein before said cleaning solution is supplied to said substrate; and  
cleaning solution supply means for supplying said  
10 cleaning solution irradiated with ultraviolet light to said substrate supported by said support means.

14. An apparatus as defined in claim 13, wherein the ultraviolet light emitted from said ultraviolet light emitting means  
15 has a wavelength in a range of 242.4 to 300nm.

15. An apparatus as defined in claim 13, wherein said cleaning solution has a base added thereto.

20 16. An apparatus as defined in claim 14, wherein said cleaning solution has a base added thereto.

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25 17. A substrate treating method for removing film from a substrate by supplying a treating solution thereto, comprising the steps of:

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supplying said treating solution having ozone dissolved  
therein to said substrate; and  
irradiating said treating solution with ultraviolet light.

5 18. A substrate treating method for removing film from a  
substrate by supplying a treating solution thereto, comprising  
the steps of:

irradiating said treating solution having ozone dissolved  
therein with ultraviolet light; and

10 supplying said treating solution to said substrate.

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19. A method as defined in claim 17, wherein said ultraviolet  
light has a wavelength in a range of 242.4 to 300nm.

15 20. A method as defined in claim 18, wherein said ultraviolet  
light has a wavelength in a range of 242.4 to 300nm.

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21. A method as defined in claim 17, wherein said treating  
solution has a base added thereto.

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22. A method as defined in claim 18, wherein said treating  
solution has a base added thereto.

23. A method as defined in claim 19, wherein said treating  
25 solution has a base added thereto.

24. A method as defined in claim 20, wherein said treating solution has a base added thereto.

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25. A substrate treating apparatus for removing film from a substrate by supplying a treating solution thereto, comprising:

support means for supporting said substrate;

treating solution supply means for supplying said treating solution having ozone dissolved therein to said substrate;

and

ultraviolet emitting means for emitting ultraviolet light to said substrate;

wherein, during a film removing process in which said treating solution is supplied from said treating solution supply means to said substrate supported by said support means, said ultraviolet emitting means emits ultraviolet light to said treating solution supplied to said substrate.

26. An apparatus as defined in claim 25, wherein the ultraviolet light emitted from said ultraviolet light emitting means has a wavelength in a range of 242.4 to 300nm.

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27. An apparatus as defined in claim 25, wherein said treating solution has a base added thereto.

28. An apparatus as defined in claim 26, wherein said treat-

545217 ing solution has a base added thereto.

29. A substrate treating apparatus for removing film from a substrate by supplying a treating solution thereto, comprising:

5 support means for supporting said substrate;

ultraviolet emitting means for emitting ultraviolet light to said treating solution having ozone dissolved therein, before said treating solution is supplied to said substrate; and

10 treating solution supply means for supplying said treating solution irradiated with ultraviolet light to said substrate supported by said support means.

30. An apparatus as defined in claim 29, wherein the ultraviolet light emitted from said ultraviolet light emitting means  
15 has a wavelength in a range of 242.4 to 300nm.

31. An apparatus as defined in claim 29, wherein said treating solution has a base added thereto.

20 32. An apparatus as defined in claim 30, wherein said treating solution has a base added thereto.